

CLAIMS

1. An antireflection film comprising: a transparent support; and as an outermost layer, a low refractive index layer containing a fluorine-containing polymer,

wherein the low refractive index layer comprises at least one inorganic fine particle having an average particle size of 30 to 100% of the thickness of the low refractive index layer.

2. The antireflection film as described in claim 1, which has at least one hard coat layer between the transparent support and the low refractive index layer.

3. The antireflection film as described in claim 1 or 2, wherein the inorganic particle is a silica fine particle.

4. The antireflection film as described in any one of claims 1 to 3, wherein the low refractive index layer further comprises at least one silica fine particle having a particle size of less than 25% of the thickness of the

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of 1 to 10, m represents 0 or 1, X represents a hydrogen atom or a methyl group, A represents an arbitrary vinyl monomer polymerization unit and may comprise a single component or a plurality of components, and x, y and z represent mol% of respective constituent components and represent values satisfying $30 \leq x \leq 60$, $5 \leq y \leq 70$ and $0 \leq z \leq 65$.

8. The antireflection film as described in any one of claims 2 to 7, wherein the at least one hard coat layer is a light-diffusing layer, and the light-diffusing layer has a scattered light intensity at 30° of 0.01 to 0.2% based on the light intensity at an exit angle of 0° in a scattered light profile by a goniophotometer.

9. The antireflection film as described in any one of claims 1 to 8, which comprises at least one high refractive index layer between the transparent support and the low refractive index layer, wherein the high refractive index layer is a layer having a refractive index of 1.55 to 2.40 and mainly comprising: titanium dioxide; and an inorganic fine particle containing at least one element selected from cobalt, aluminum and zirconium.

10. The antireflection film as described in any one of claims 1 to 9, wherein the low refractive index layer has a refractive index of 1.20 to 1.49.

11. A polarizing plate comprising a polarizer and two protective films of the polarizer, wherein one of the two protective films of a polarizer is the antireflection film described in any one of claims 1 to 10.

12. The polarizing plate as described in claim 11, wherein the film other than the antireflection film of the two protective films of a polarizer is an optical compensation film having an optical compensation layer comprising an optically anisotropic layer,

wherein the optically anisotropic layer is a layer having a negative birefringence and comprising a compound having a discotic structural unit, the disc plane of the discotic structural unit is inclined with respect to the surface protective film plane, and the angle made by the disc plane of the discotic structural unit and the surface protective film plane is changed in the depth direction of the optically anisotropic layer.

13. An image display device comprising the anti-reflection film described in any one of claims 1 to 10 or the polarizing plate described in claim 11 or 12, as the outermost surface of the display.

14. A liquid crystal display device of a TN-, STN-, VA-, IPS- or OCB-mode transmissive, reflective or transflective type, which comprises at least one polarizing plate described in claim 11 or 12.